Education & Teaching

Incorporating medical leadership and management into the undergraduate medical curriculum

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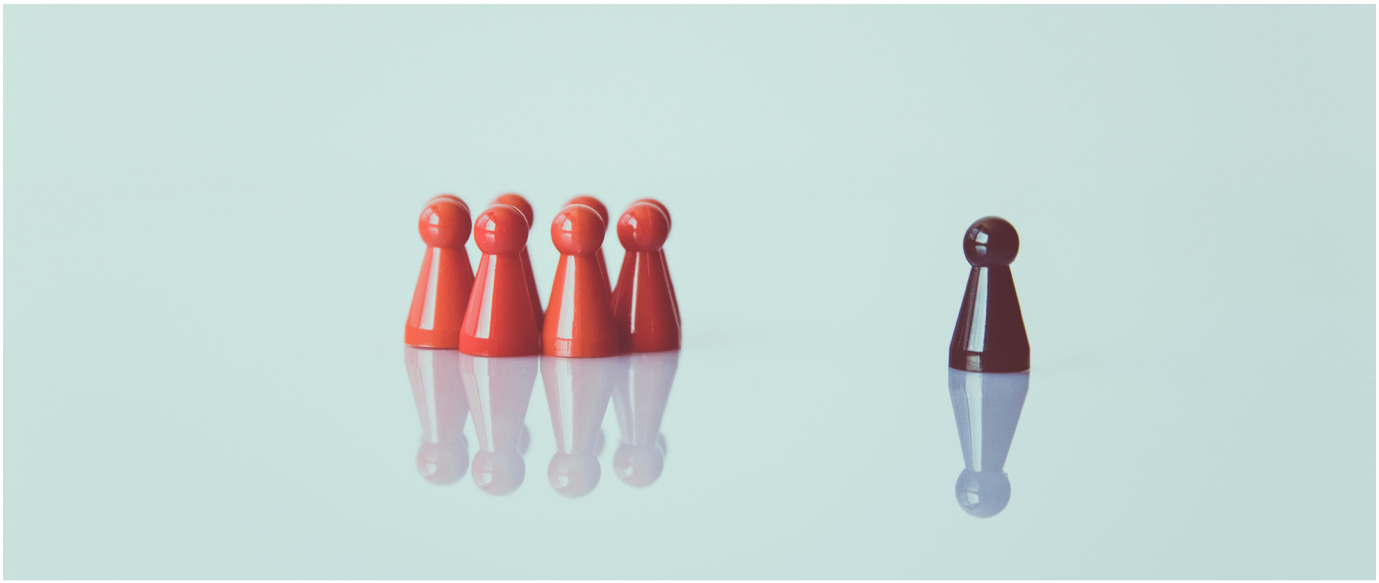

Abstract

Medical leadership and management (MLM) is an underexposed area of the undergraduate medical curriculum. Refining the medical curriculum to clearly incorporate MLM is challenging, with barriers including a lack of staff experience and an already overcrowded curriculum. Frameworks such as the Medical Leadership Competency Framework (MLCF), break down MLM into five key domains, making it easier for medical schools to thoroughly incorporate teaching in this field into the undergraduate curriculum. It is crucial that MLM is incorporated at an early stage in medical students' careers so that we can become safe and competent doctors in the future.

Abbreviations

CBL - Case-based learning
FMLM - The Faculty of Medical Leadership and Management
GMC - General Medical Council
MLCF - The Medical Leadership Competency Framework
MLM - Medical Leadership and Management
MSF - Multi-source feedback
QIP - Quality improvement project
SSC - Student selected component

Introduction

Training in medical leadership and management (MLM) is vital for becoming a safe and competent doctor. Leaders pave the path for others to follow, inspiring them to do so as well. Leadership is quoted as 'getting results with and through people'.[1] Indeed, leaders would not exist without colleagues, and vice-versa. As emphasised in the General Medical Council (GMC),[2] doctors are part of multidisciplinary teams, so we must listen to and respect each member's opinion. In doing so, we will be driving forward healthcare and making a positive impact to patients' lives. It is, therefore, crucial that MLM is incorporated at an early stage in our careers, and I shall be offering ideas as to how this can be achieved.

Literature search

To assess MLM teaching in the current undergraduate medical curriculum, a literature search for primary research papers was conducted in January 2021 using PubMed. The following keywords were used to find papers: 'leadership', 'management', 'UK medical curriculum' and 'teaching'. The prerequisites for the selection of papers included that articles were specific to the UK medical curriculum and that full text was available. Google was used as a search engine to find websites for current MLM frameworks and guidance.

MLM in the current curriculum

Whilst medical schools nationally agree on the importance of MLM, little has been done to thoroughly integrate it into the undergraduate curriculum. Analysing over 70% of medical schools nationally, Jefferies *et al.*, (2016) conducted the first nationwide assessment of MLM in the undergraduate medical curriculum, which produced

data representative of UK medical schools.[3] They reported that 88% of medical schools aimed to increase MLM education but struggled to design teaching methods. This was, in part, due to an overcrowded curriculum, but also because of a lack of clear guidance on teaching methods at the time. Furthermore, as shown by Stringfellow *et al*., (2014), only 20.4% of students felt that they were being taught MLM correctly.[4] Crucially, while it does exist as part of the curriculum (mainly through lecture-based teaching), students feel session objectives are not clear or signposted well enough and would prefer more experiential learning.[3] As a result, The Faculty of Medical Leadership and Management (FMLM) devised a standardised curriculum relating to MLM education for medical schools to follow.[5]

Based on the Medical Leadership Competency Framework (MLCF), the curriculum draws on five key domains of leadership. The FMLM suggested that medical schools create opportunities in the darker shaded domains shown in **Figure 1.** These domains offer a greater range of opportunities for incorporation of MLM in the curriculum, and as such are discussed further below.[6] 'Setting direction' has been excluded from discussion as this domain draws on aspects of MLM on an organisational level, and so is less skill-based than the other domains.[5]

Figure 1. The MLCF. The figure has been adapted from the FMLM[5] and illustrates five key domains of MLM. The domains that are coloured blue can be incorporated more easily in the undergraduate curriculum.

Personal qualities

Attributes such as resilience, curiosity and self-awareness prevail among good leaders. Whilst most medical students may already possess these, the curriculum should be designed such that they are nurtured. Activities such as small group discussion using Balint format aid self-reflection and the critical appraisal of leadership skills amongst clinicians.[7] This is typically conducted in a small group setting where participants can describe particularly challenging cases, and the chair can lead the others through the processing of any thoughts or feelings that may arise. Personal experience has shown that, whilst uptake for these sessions may be low initially, due to the demands of clinical placement, students may progressively subscribe to the notion as they begin to encounter challenges in their clinical placement. Meanwhile, curiosity may be kindled at an earlier stage by allowing younger medical students to attend postgraduate lectures on topics they find interesting, which they could then follow up in a Student Selected Component (SSC) or an intercalated degree.

Working with others

Perhaps one of the most important aspects of MLM education involves medical students working effectively in any team. Attendance at multidisciplinary team meetings should be made compulsory during the clinical years so that students can observe members roles and team working dynamics.[5] Students should be encouraged to take minutes during meetings, as well as assisting foundation doctors in notetaking during ward rounds, making them feel more involved. Furthermore, students have the privilege of more time than doctors to listen to any worries or concerns patients may have and can communicate them with the clinician in charge.[5] Simultaneously, students can make patients feel more valued, and improve overall patient care, whilst nurturing their own leadership skills. However, as it may be overwhelming for students to assume a leadership role in a clinical setting, such roles should primarily be encouraged to students in clinical years.

Working with others should also be encouraged at an earlier stage, before clinical years. Team-building exercises should be incorporated more frequently, early on in the curriculum. This is a fun way of getting to know fellow peers and assists in identifying students who might lack the natural leadership qualities. These students could be asked to chair case-based learning (CBL) sessions more frequently, to build their confidence in a leadership role. CBL sessions are a form of regular group-based exercise where students learn through the discussion of cases, with a Chair to lead the session and a scribe to note down what was said. As shown by Quince *et al*., (2014), medical students believe feedback is an important way of both teaching and assessing MLM.[8] Notably, they claim that feedback is often 'asymmetrical' as students are required to give feedback and are hardly on the receiving end of it. Multi-source feedback (MSF) should be implemented early on in the curriculum, ensuring students receive feedback from tutors, peers and patients. This could be routinely incorporated after CBL and group simulation exercises.[5]

> *By ensuring regular mutual feedback, students will be encouraged to contribute more to group exercises and can target specific areas to improve their leadership qualities.*

Doctors work in multi-disciplinary teams, and so there should be a greater emphasis on interprofessional education. Lectures should be delivered by a wider range of professionals, and the curriculum should involve several interdisciplinary events, such as events including medical and engineering students.[5] Organisations like the MedTech Foundation host innovation programmes where medical students work alongside engineering and business students to create solutions to clinical problems.[9] Medical students should be encouraged to take part in these, to further their leadership skills, whilst embracing future collaboration and innovation within healthcare.

Managing and improving services

Whilst medical students are not required to undertake an audit or quality improvement project (QIP), the GMC stipulate in their learning outcomes for graduates that newly qualified doctors must be able to describe the principles of quality improvement and apply them to improve practice.[10] Aside from competencies, getting involved in audits and QIPs as a medical student will help in a number of other ways. For career progression, it allows students to demonstrate dedication to a speciality and offers the ability to network and collaborate with more senior clinicians. Furthermore, it equips medical students with the skills and knowledge needed later in their training (e.g., junior doctors are required to undertake a minimum of one audit annually).[11]

> *As opportunities to get involved in audits and QIPs are scarce, students should be offered formal teaching in these areas.*[4]

This will help to improve their confidence in audit methodology and can be followed up in formative assessments.[5] An example of where this is already happening is at Imperial College London, where students are required to undertake a QIP.[4] However, in an already saturated curriculum, lectures and assessment on this topic may not be seen as a priority by all medical schools. Therefore, SSCs in MLM should be offered, allowing more students to get involved in audits with clinicians. This is already being seen at Barts and The London School of Medicine and Dentistry where they have also created an MLM student society but should be standardised across the UK undergraduate medical curriculum to allow students to improve their management skills.[12]

Conclusion

Refining the medical curriculum to clearly incorporate MLM is challenging, with barriers including a lack of staff experience and an already overcrowded curriculum. Medical schools across the country differ substantially in teaching style, with some offering more traditional lecture-based teaching and others more integrative teaching, such as CBL.[13] Therefore, incorporating a standardised curriculum for each medical school to follow may prove challenging. Rather, medical schools should evaluate their current MLM teaching and devise strategies to bolster them further by using the advice given by the FMLM as well as student feedback.

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